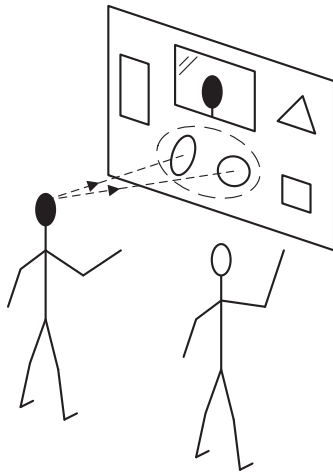


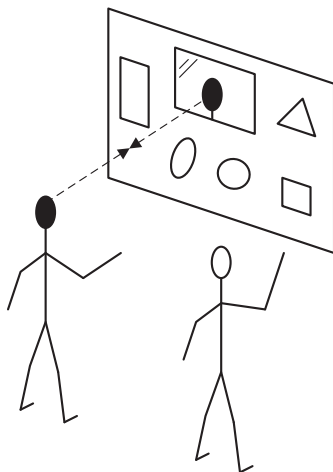
Cogito ergo sisto, pertino ergo sum. *(I think, therefore I exist; I belong, therefore I am.)*

IN PREVIOUS ISSUES of this volume, the problem of the human being who places his attention on entities other than himself was proposed.



The solution to that problem identified two actions: *perceiving* and *grouping*, which taken together are the same as *thinking*. In this issue, we deal with the subject of *self-perception* and that of the *perception of others*. These two new proposals shall respectively receive the names of *the mirror problem* and *the peer problem*. Solving each of these problems—as shall be seen—will lead the thinker to a conclusion.

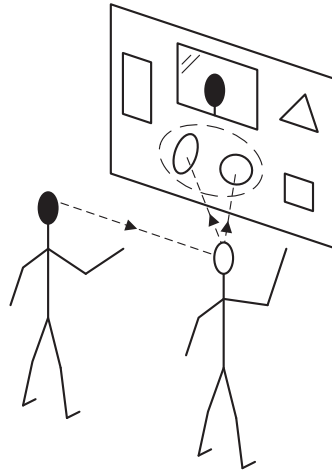
The Mirror Problem Among the entities that are a part of the universe, there are some that have a special characteristic. Those are the *mirrors*, meaning that they have reflective surfaces, such as puddles of water or polished metal knives.



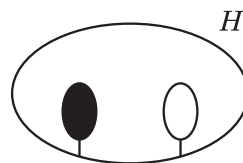
It is because of these entities that the human being is aware of his own existence. It is worth mentioning that, while the existence of other beings is *directly* perceived, the existence of oneself is per-

ceived *indirectly*. And when man recognizes himself as a being that perceives and groups entities together, he says: “I think.”

The Peer Problem After recognizing himself as a thinking being, a time will come when the human being finds another who is capable of doing the same, his *peer*.



This will cause him to define a new set, *H*, of which he is himself an element. Then he says: “I belong.”



All of Aristotle’s senses are involved in perceiving another: the *extended sense* (tact), the *chemical senses* (taste and smell) and the *wave senses* (sight and hearing). Any of these will allow us to detect in another a “slightly different” being, that is, a being “with great similarities.” The first three are those used by a newborn to recognize its mother. The higher senses mature later in life. The proposal made here is relevant to that second stage in a person’s development.

Of these two titles it so happens that, just as thinking of entities other than oneself must be divided into two actions, so does thinking of oneself also need to be unfolded into: (i) thinking of oneself and of the other, and (ii) forming a set with the other.

Conclusions: 1. The solution for the Mirror Problem ends by affirming: “I think.” However, this is followed by the observation that: “I am also on the board”. And, as shown in the previous issue, to be on the board (*tabula*) is to exist. The conclu-

(continued on page 2)

MAIN ARTICLE

Gnoseology

The process of knowledge consists of five stages: one in which the human being passively associates entities at the level of the senses, and four actions (*sentio, conglobo, speculo, congreco*) which, in pairs, will produce definitions. The process of knowledge, which is the subject of gnoseology, then consists in perception and definition. The theory presented here borrows several elements from Rene Descartes own theory.

(page 2)

LINGUISTIC NOTE

The Etymology of Being (I)

The verb εἶναι, which is used by Parmenides in “*The Way of Truth*,” has two Indo-European roots in its history (“inactively being” and “actively being”), which had been confused before classic times. At the same time, another root, that of the latin verb “to stay”, was re-duplicated to give rise to the verb “to stay present”. The theory of knowledge presented in this article is entirely consistent with this history.

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BACK PAGE

INTERVIEW WITH JOTAJOTA

Myth and Opinion

Sitting on a park bench in the French Garden of Independence Park, we speak to Juan Jose Luetich about the origin of myths and of the common elements between myths and opinions.

BIOGRAPHICAL NOTE

Juan José Luetich, teacher

After getting his title as a Music Teacher, his calling led him to explore many levels within the educational system: pre-secondary, secondary, pre-tertiary, tertiary, precollege, college and postgradual.

PRINTING NOTES

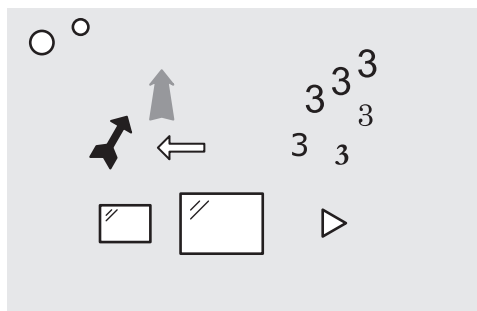
About this publication

Transactions is a serial publication by the Luventicus Academy, an NGO created to promote information, education, science and culture. This supplement is dedicated to the dissemination of the works Juan José Luetich.

Gnoseology

IN THIS ARTICLE a theory of knowledge is presented based on the definitions used in the “Glossary of Ontology” of the previous issue and on the conclusions of the front page article in this issue.

The Whole is perceived by the human mind as being made up of elements of variable diversity. At first sight, elements are associated by mathematical (*quantity*), physical (*status*) or chemical (*substance*) affinity. This affinity is established by ideas that precede sensory experience and can trace their origins to the very structure of the human brain. In order to simplify the problem, let us consider the case of similarity in form, which is a type of mathematical affinity.



(0) From each group of like elements, the mind takes only one, in a passive attitude at the level of the senses (the outermost organs of consciousness) which entails no definition whatsoever.

What follows are the four actions that make up the process of knowledge (see the series of diagrams in the following column). In them the human being quits the passive attitude to intervene and contribute.

(I) The mind focuses attention on some of the elements that have been identified. In this action (*sentio* = to perceive), the universe is defined.

(II) The mind groups together the elements of the universe by involving mental processes that result in the definition of concepts (*conглоbo* = to group).

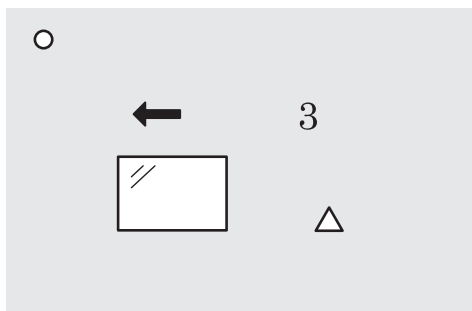
(III) An element with a reflective surface allows the human being to become aware of his own existence. This action (*speculo* = to look into the mirror, to contemplate) places the thinking being himself upon the board also and the universe is broadened.

(IV) The presence of another being who is capable of perceiving and grouping elements, and who can be seen reflected in the same mirror (second broadening of the universe), will cause the thinking being to define a new set in which he is also included (*congrego* = to gather).

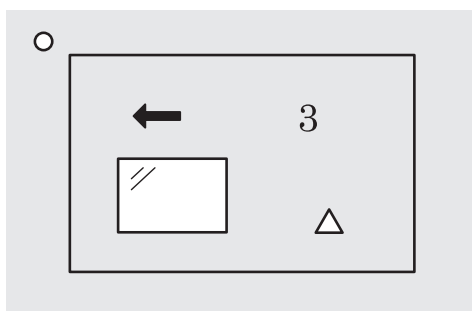
These actions are simple actions that can be associated to produce other, more complex ones and simplify the statements. Thus, for example:

$$\text{sentio} + \text{conглоbo} = \text{cogito}.$$

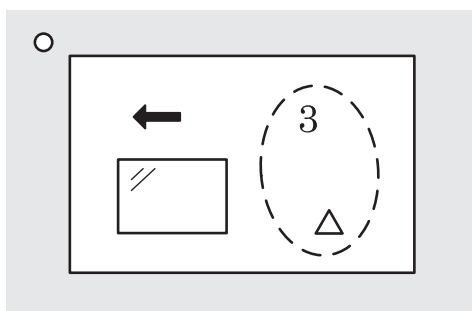
The complex action of thinking (= *cogito*) results from the sum of *perceiving* and *grouping*. On the other hand, belonging (= *pertino*)



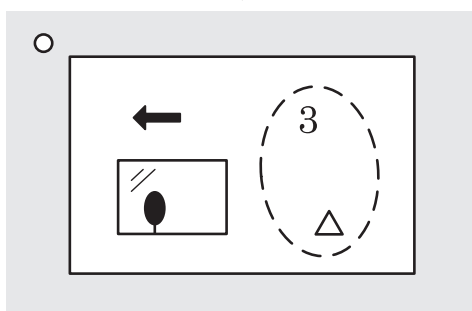
sentio ↓ I



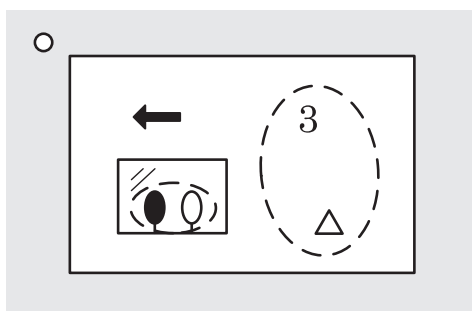
conглоbo ↓ II



speculo ↓ III



congrego ↓ IV



results from the sum of *seeing oneself in the mirror* and *gathering together with the peer*:

$$\text{speculo} + \text{congrego} = \text{pertino}.$$

It is then clear that, in this context, the verb “to belong” identifies an action.

(continued on page 3)

PRIMERA PLANA

Cogito ergo sisto, pertino ergo sum.

(viene de página 1)

sion then is: “If I think, I exist.” 2. The solution for the Peer Problem ends by affirming: “I belong.” Followed by the observation: “I am also within a set.” And, as shown in the previous issue, to belong to a set is to be (being something). The conclusion now is: “If I belong, I am.”

The two aforementioned conclusions were expressed in the form used by Augustine of Hippo: “*Si fallor, sum*,” that is, “*If I fail, I exist*.” While the form used by Rene Descartes is equally valid: “*Cogito ergo sum*,” provided it is interpreted as “*From the fact that I think, I conclude that I am*.” Both statements attest to the existence of the self itself and are therefore *unidirectional*, in the sense that they should not be interpreted backwards. That is why the following expressions are false: “I exist if I fail”, and, “I exist because I think.” The conclusions reached from the problems presented in this article may then be formulated as follows.

The Mirror Problem	
<i>Cogito ergo sisto.</i>	<i>I think, therefore I exist.</i>
<i>cogito ⇒ sisto</i>	

The Peer Problem	
<i>Pertino ergo sum.</i>	<i>I belong, therefore I am.</i>
<i>pertino ⇒ sum</i>	

Formally, the unidirectional connector uses the implication symbol: “ \Rightarrow .”

Ask Jotajota

Send your question to: jjluetich@luventicus.org

Miguel Ángel from Lima (PE) asks:

—What is the best definition for “the divisor of a number”?

—First we should remember that in the article called “*To be and to belong*” we spoke of “the natural divisors of a natural number n ”. In that case, the definition A_3 (“natural numbers that reduce n such that the results also belong to the set”) is the more elaborate one. This definition, for example, makes it simpler to introduce the concept of “prime number.” In fact, according to it, a natural number is a prime number when it does not have any divisors. However, the label of “best” should never be applied to a definition: given any two clear definitions, neither can be better than the other. Although it is true that if a definition is established for a specific application—as is the case with A_3 when used to study prime numbers—, it may be more practical for that purpose than others, we should still abstain from using the adjective “best.”

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